

CLAIMS

1. A process for preparing diphenylchlorosilanes by the Grignard process comprising contacting a phenyl Grignard reagent, an ether solvent, an aromatic halogenated coupling solvent, and a trichlorosilane; wherein the mole ratio of the ether solvent to the phenyl Grignard reagent is 2 to 5, the mole ratio of the aromatic halogenated coupling solvent to the phenyl Grignard reagent is 3 to 7, and the mole ratio of the trichlorosilane to the phenyl Grignard reagent is 0.1 to 10.
2. The process according to Claim 1 wherein the phenyl Grignard reagent is phenyl magnesium chloride.
3. The process according to Claim 1 or 2 wherein the ether solvent is a dialkyl ether selected from the group consisting of dimethyl ether, diethyl ether, ethylmethyl ether, n-butylmethyl ether, n-butylethyl ether, di-n-butyl ether, di-isobutyl ether, isobutylmethyl ether, and isobutylethyl ether.
4. The process according to any of Claims 1 to 3 wherein the aromatic halogenated coupling solvent is chlorobenzene.
5. The process according to any of Claims 1 to 4 wherein the trichlorosilane is selected from the group consisting of methyltrichlorosilane, phenyltrichlorosilane, and vinyltrichlorosilane.
6. A process for preparing diphenylchlorosilanes by the Grignard process comprising contacting a phenyl Grignard reagent, an ether solvent, an aromatic halogenated coupling solvent, a trichlorosilane, and a phenylchlorosilane; wherein the mole ratio of the ether solvent to the phenyl Grignard reagent is 2 to 5, the mole ratio of the aromatic halogenated coupling solvent to the phenyl Grignard reagent is 3 to 7, the mole ratio of the trichlorosilane to the phenyl Grignard reagent is 0.1 to 10, and the mole ratio of the phenylchlorosilane to the phenyl Grignard reagent is 0.5 to 5.

7. The process according to Claim 6 wherein the phenyl Grignard reagent is phenyl magnesium chloride.

8. The process according to Claim 6 or 7 wherein the ether solvent is a dialkyl ether selected from the group consisting of dimethyl ether, diethyl ether, ethylmethyl ether, n-butylmethyl ether, n-butylethyl ether, di-n-butyl ether, di-isobutyl ether, isobutylmethyl ether, and isobutylethyl ether.

9. The process according to any of Claims 6 to 8 wherein the aromatic halogenated coupling solvent is chlorobenzene.

10. The process according to any of Claims 6 to 9 wherein the trichlorosilane is selected from the group consisting of methyltrichlorosilane, phenyltrichlorosilane, and vinyltrichlorosilane.

11. The process according to any of Claims 6 to 10 wherein the phenylchlorosilane is selected from the group consisting of phenylmethyldichlorosilane, phenyltrichlorosilane, diphenyldichlorosilane, phenylvinylchlorosilane, and hydridophenyldichlorosilane.

12. A process for preparing diphenylchlorosilanes by the Grignard process comprising contacting a phenyl Grignard reagent, an ether solvent, an aromatic halogenated coupling solvent, and a phenylchlorosilane; wherein the mole ratio of the ether solvent to the phenyl Grignard reagent is 2 to 5, the mole ratio of the aromatic halogenated coupling solvent to the phenyl Grignard reagent is 3 to 7, and the mole ratio of the phenylchlorosilane to the phenyl Grignard reagent is 0.5 to 5,

13. The process according to Claim 12 wherein the phenyl Grignard reagent is phenyl magnesium chloride.

14. The process according to Claim 12 or 13 wherein the ether solvent is a dialkyl ether selected from the group consisting of dimethyl ether, diethyl ether, ethylmethyl ether, n-butylmethyl ether, n-butylethyl ether, di-n-butyl ether, di-isobutyl ether, isobutylmethyl ether, and isobutylethyl ether.

15. The process according to any of Claims 12 to 14 wherein the aromatic halogenated coupling solvent is chlorobenzene.

- 5 16. The process according to any of Claims 12 to 15 wherein the phenylchlorosilane is selected from the group consisting of phenylmethyldichlorosilane, phenyltrichlorosilane, diphenyldichlorosilane, phenylvinylchlorosilane, and hydridophenyldichlorosilane.

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